THAT WHICH IS CLAIMED:

1. A method for increasing resistance of a plant to at least one pathogen, said method comprising transforming said plant with a DNA construct comprising a nucleotide sequence that encodes a protein having anti-pathogenic activity, wherein said nucleotide sequence is selected from the group consisting of:

a) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:3;

b) the nucleotide sequence set forth in SEQ ID NO: 6;

c) a nucleotide sequence that shares at least 80% identity to the sequence of SEQ ID NO:6; and,

d) the defensin nucleotide sequence contained in a plasmid deposited as Patent Deposit No. PTA-75; and,

e) a nucleotide sequence that hybridizes to the complement of any one of a)-d) under highly stringent conditions, wherein said highly stringent conditions comprise hybridization in 50% formamide, 1M NaCl, 1% sodium dodecyl sulphate at 37°C for at least 4 hours, and a wash in 0.1X SSC at 60°C for at least 30 minutes; wherein said nucleotide sequence is operably linked to a promoter that drives expression of a coding sequence in a plant cell; and regenerating stably transformed plants with increased resistance to at least one pathogen.

2. The method of claim 1, wherein said pathogen is a fungal pathogen.

3. The method of claim 1, wherein said plant is a dicot.

4. The method of claim 1, wherein said plant is a monocot.

5. The method of claim 1, wherein said promoter is a constitutive promoter.

6. The method of claim 5, wherein said constitutive promoter is selected from the scp1 or ucp promoter.

7. The method of claim 1, wherein said promoter is an inducible promoter.

8. The method of claim 7, wherein said promoter is a pathogen-inducible promoter.

9. A plant having stably incorporated into its genome a DNA construct comprising a nucleotide sequence that encodes a protein having anti-pathogenic activity, wherein said nucleotide sequence is selected from the group consisting of:

a) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:3;

b) the nucleotide sequence set forth in SEQ ID NO: 6;

c) a nucleotide sequence that shares at least 80% identity to the sequence of SEQ ID NO:6;

d) the defensin nucleotide sequence contained in a plasmid deposited as Patent Deposit No. PTA-75; and,

e) a nucleotide sequence that hybridizes to the complement of any one of a)-d) under highly stringent conditions, wherein said highly stringent conditions comprise hybridization in 50% formamide, 1M NaCl, 1% sodium dodecyl sulphate at 37°C for at least 4 hours, and a wash in 0.1X SSC at 60°C for at least 30 minutes; wherein said nucleotide sequence is operably linked to a promoter that drives expression of a coding sequence in a plant cell.

10. The transformed seed of the plant according to claim 9, wherein said seed comprises said DNA construct.

11. A plant cell having stably incorporated into its genome a DNA construct comprising a nucleotide sequence that encodes a protein having anti-pathogenic activity, wherein said nucleotide sequence is selected from the group consisting of:

a) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:3;

b) the nucleotide sequence set forth in SEQ ID NO:6;

c) a nucleotide sequence that shares at least 80% identity to the sequence of SEQ ID NO:6;

d) the defensin nucleotide sequence contained in a plasmid deposited as Patent Deposit No. PTA-75; and,

e) a nucleotide sequence that hybridizes to the complement of any one of a)-d) under highly stringent conditions, wherein said highly stringent conditions comprise hybridization in 50% formamide, 1M NaCl, 1% sodium dodecyl sulphate at 37°C for at least 4 hours, and a wash in 0.1X SSC at 60°C for at least 30 minutes; wherein said nucleotide sequence is operably linked to a promoter that drives expression of a coding sequence in a plant cell.

12. An isolated nucleic acid molecule having a nucleotide sequence that encodes a protein having anti-pathogenic activity, wherein said nucleotide sequence is selected from the group consisting of:

a) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:3;

b) the nucleotide sequence set forth in SEQ ID NO:6;

c) a nucleotide sequence that shares at least 80% identity to the sequence of SEQ ID NO:6;

d) the defensin nucleotide sequence contained in a plasmid deposited as Patent Deposit No. PTA-75; and,

e) a nucleotide sequence that hybridizes to the complement of any one of a)-d) under highly stringent conditions, wherein said highly stringent conditions comprise hybridization in 50% formamide, 1M NaCl, 1% sodium dodecyl sulphate at 37°C for at least 4 hours, and a wash in 0.1X SSC at 60°C for at least 30 minutes.

13. A DNA construct comprising a nucleotide sequence of claim 12.

14. A vector comprising the DNA construct of claim 13.

15. A substantially purified protein molecule having an amino acid sequence selected from the group consisting of:

a) the amino acid sequence set forth in SEQ ID NO:3;

b) an amino acid sequence that shares at least 80% sequence similarity to the sequence of SEQ ID NO:3; and,

c) the defensin amino acid sequence encoded by the nucleotide sequence contained in a plasmid deposited as Patent Deposit No. PTA-75.

16. A composition comprising a protein of claim 15, and a carrier.

17. The composition of claim 16, wherein said carrier is selected from the group consisting of a surface active agent, an inert carrier, an encapsulating agent, an agrochemical carrier, and a pharmaceutical carrier.

19. A method for controlling a plant pathogen comprising applying an anti-pathogenic amount of the protein of claim 15 to the environment of said pathogen.

20. The method of claim 19, wherein said protein is applied to a plant.

21. The method of claim 19, wherein said protein is applied by a procedure selected from the group consisting of spraying, dusting, scattering and seed coating.

22. A method for controlling a plant pathogen comprising applying an anti-pathogenic amount of the composition of claim 16 to the environment of said pathogen.